AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (previously presented) The assembly of Claim 26, wherein:

the transformer comprises a primary winding with a primary connection and a secondary winding with a secondary connection;

the thermal sensing and control device comprises a first thermal sensor in thermal communication with the primary winding, the secondary winding, or combination thereof; and

the cooling device comprises an airflow generator in signal communication with the first thermal sensor and arranged for fluid communication with the primary winding, the secondary winding, or combination thereof;

wherein the airflow generator is responsive to the first thermal sensor to direct an airflow toward the primary winding, secondary winding, or combination thereof, in response to a winding temperature being in excess of a first temperature threshold.

2. (original) The assembly of Claim 1, wherein the transformer is a dry-type transformer.

3. (previously presented) The assembly of Claim 1, wherein:

the thermal sensing and control device further comprises a second thermal sensor in thermal communication with the primary winding, the secondary winding, or combination thereof; and further comprising:

an alarm device in signal communication with the second thermal sensor;

wherein the alarm device is responsive to the second thermal sensor to signal an alarm condition in response to a winding temperature being in excess of a second temperature threshold.

4. (previously presented) The assembly of Claim 3, wherein:

the thermal sensing and control device further comprises a third thermal sensor in thermal communication with the primary winding, the secondary winding, or combination thereof; and

the electrical disconnect device is in signal communication with the third thermal sensor and is in electrical communication with the transformer;

wherein the electrical disconnect device is responsive to the third thermal sensor to disconnect electrical power at the transformer in response to a winding temperature being in excess of a third temperature threshold.

5. (original) The assembly of Claim 4, wherein the first, second and third thermal sensors are thermal switches.

6. (original) The assembly of Claim 4, wherein the first temperature threshold is less than the second temperature threshold, and the second temperature threshold is less than the third temperature threshold.

7. (original) The assembly of Claim 6, wherein the first, second, and third temperature thresholds are less than the insulation degradation temperature rating of the transformer windings.

8. (original) The assembly of Claim 4, wherein the electrical disconnect device is a switch or a circuit breaker.

9. (original) The assembly of Claim 1, further comprising:

a support member having a lifting surface arranged for lifting the assembly; and

a housing having a first vent for permitting air passage into the housing and a second vent for permitting air passage out of the housing.

10. (original) The assembly of Claim 4, wherein the transformer is a three-phase transformer.

11. (original) The assembly of Claim 10, wherein the electrical disconnect device is disposed proximate the central transformer of the three-phase transformer, and the user primary connections of the electrical disconnect device are disposed at the bottom of the electrical disconnect device.

12. (original) The assembly of Claim 11, wherein the electrical disconnect device is disposed on the same side of the transformer as are the secondary connections of the transformer.

13. (original) The assembly of Claim 1, wherein the airflow generator comprises a first fan arranged for directing a first airflow at a first side of the transformer and a second fan arranged for directing a second airflow at a second opposing side of the transformer.

14. (original) The assembly of Claim 9, wherein the housing further includes an interior surface insulated for sound.

15. (previously presented) The method of Claim 27 wherein the cooling device comprises a fan, and further comprising:

energizing the transformer;

sensing the temperature of a winding of the transformer via a first thermal switch productive of the first signal; and

actuating the fan in response to the sensed temperature at the first thermal switch exceeding a first temperature threshold.

16. (original) The method of Claim 15, further comprising:

sensing the temperature of a winding of the transformer via a second thermal switch; and

actuating an alarm in response to the sensed temperature at the second thermal switch exceeding a second temperature threshold, the second temperature threshold being greater than the first temperature threshold.

17. (previously presented) The method of Claim 16, further comprising:

sensing the temperature of a winding of the transformer via a third thermal switch productive of the second signal; and

actuating the electrical disconnect in response to the sensed temperature at the third thermal switch exceeding a third temperature threshold, the third temperature threshold being greater than the second temperature threshold.

18. (original) The method of Claim 17, wherein:

the transformer comprises a three-phase transformer;

the sensing the temperature of a winding of the transformer via a first thermal switch comprises sensing at each phase the temperature of a winding of the transformer via a first thermal switch disposed at each phase; and

the actuating a fan comprises actuating a fan disposed at a phase of the transformer in response to the sensed temperature at the first thermal switch of the respective phase exceeding the first temperature threshold, each phase of the transformer having an associated first thermal switch and fan.

19. (original) The method of Claim 18, wherein:

the sensing the temperature of a winding of the transformer via a second thermal switch comprises sensing at each phase the temperature of a winding of the transformer via a second thermal switch disposed at each phase;

the sensing the temperature of a winding of the transformer via a third thermal switch comprises sensing at each phase the temperature of a winding of the transformer via a third thermal switch disposed at each phase;

the actuating an alarm comprises actuating an alarm in response to the sensed temperature at any of the second thermal switches exceeding the second temperature threshold; and

the actuating an electrical disconnect comprises actuating an electrical disconnect in response to the sensed temperature at any of the third thermal switches exceeding the third temperature threshold.

20. (original) A transformer assembly, comprising:

a three-phase dry-type transformer having at each phase a primary winding with a primary connection and a secondary winding with a secondary connection;

a first, second, and third thermal switch at each phase in thermal communication with the respective primary winding, secondary winding, or combination thereof; and

a fan at each phase in signal communication with the respective first thermal switch, and arranged for fluid communication with the respective primary winding, secondary winding, or combination thereof;

wherein each fan is responsive to the respective first thermal switch for directing an airflow toward the respective primary winding, secondary winding, or combination thereof, in response to a respective winding temperature being in excess of a first temperature threshold;

wherein the second thermal switch at each phase is arranged to provide a signal indicative of a respective winding temperature being in excess of a second temperature threshold;

wherein the third thermal switch at each phase is arranged to provide a signal indicative of a respective winding temperature being in excess of a third temperature threshold;

wherein the first temperature threshold is less than the second temperature threshold, and the second temperature threshold is less than the third temperature threshold.

21. (original) The assembly of Claim 20, further comprising:

a support member having a lifting surface arranged for lifting the assembly; and

a housing having a first vent for permitting air passage into the housing, and a second vent for permitting air passage out of the housing;

wherein the primary and secondary connection at each phase are disposed on the same side of the three-phase transformer.

22. (currently amended) A transformer assembly, comprising:

a transformer;

a sensor in signal communication with the transformer for sensing an operating characteristic thereof;

another sensor in signal communication with the transformer, the another sensor arranged for signal communication with an electrical disconnect device; and

an airflow generator in signal communication with the sensor and arranged for fluid communication with the transformer;

wherein the airflow generator is responsive to the sensor for directing an airflow toward the transformer in response to the sensed operating characteristic being desirous of an airflow at the transformer.

23. (original) The assembly of Claim 22, wherein the operating characteristic desirous of an airflow at the transformer is a temperature value, a humidity level, a power ON condition, or any combination comprising at least one of the foregoing.

24. (original) The assembly of Claim 23, wherein the sensor senses the power ON condition at the transformer and the airflow generator is responsive thereto.

25. (currently amended) The assembly of Claim [[24]] 22, further comprising:

~~a second and a third sensor in signal communication with the transformer, the second sensor arranged for signal communication with an alarm device, the third sensor arranged for signal communication with an electrical disconnect device;~~

a support member having a lifting surface arranged for lifting the assembly; and

a housing having a first vent for permitting air passage into the housing and a second vent for permitting air passage out of the housing.

26. (previously presented) A transformer assembly, comprising:

a transformer;

a thermal sensing and control device in thermal communication with the transformer;

a cooling device in signal communication with the thermal sensing and control device, and arranged for cooling the transformer on command; and

an electrical disconnect device in signal communication with the thermal sensing and control device, and arranged for disconnecting the transformer from a source of electrical power on command;

wherein the cooling device is responsive to a first signal from the thermal sensing and control device, and the electrical disconnect is responsive to a second signal from the thermal sensing and control device.

27. (previously presented) A method of operating a transformer assembly, the assembly comprising a transformer, a thermal sensing and control device in thermal communication with the transformer, a cooling device in signal communication with the

thermal sensing and control device, and arranged for cooling the transformer on command, and an electrical disconnect device in signal communication with the thermal sensing and control device, and arranged for disconnecting the transformer from a source of electrical power on command, the method comprising:

receiving a first signal from the thermal sensing and control device, and operating the cooling device in response thereto; and

receiving a second signal from the thermal sensing and control device, and operating the electrical disconnect device in response thereto.

28. (new) The assembly of Claim 22, further comprising:

a further sensor in signal communication with the transformer, the further sensor arranged for signal communication with an alarm device;

wherein the sensor is a first sensor, the further sensor is a second sensor, and the another sensor is a third sensor;

wherein in response to the second sensor sensing a second temperature threshold at the transformer, the second sensor provides an alarm signal for the alarm device; and

wherein in response to the third sensor sensing a third temperature threshold at the transformer, the third sensor provides a trip signal for the electrical disconnect device.